

ABSTRACT

A wet and a wet and dry dust removal apparatus, the latter for drilling applications including a housing, adapted to contain powered air induction means to induct air contaminated with particulate matter, water spraying means adapted to spray a mist of water into the induced air stream to capture the particulate matter, water removal means adapted to remove water droplets containing the particulate matter, the water removal means positioned in the housing parallel angle to the direction of the air flow, wherein the paralleled position by presenting a minimal drag profile in the air flow reduces the air pressure and velocity required to remove dust for a given volume of air, so that the energy consumption of the air induction means is correspondingly reduced.